

Harris County

HCPHES

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July 6, 2010

Mr. Valmichael Leos
Remedial Project Manager
U.S. Environmental Protection Agency (EPA) - 6SF-RL
1445 Ross Avenue
Dallas, TX 75202

Subject: San Jacinto River Waste Pits Superfund Site – Comments on Draft Time Critical Removal Action Alternatives Analysis

Dear Mr. Leos:

Harris County appreciates the opportunity to comment on the Draft Time Critical Removal Action Alternatives Analysis for the San Jacinto River Waste Pits Superfund Site (SJRWPSS) located in Harris County, Texas. Harris County's SJRWPS Technical Team comprises members of Harris County Public Health and Environmental Services (HCPHES), Public Infrastructure Department and the County Attorney's Office. We received the analysis on June 2, 2010 and submitted initial comments per your deadlines on June 11, 2010. As we stated in our letter of June 11, our review is ongoing and we may choose to supplement. By this letter, we are adding to and modifying our comments based on further discussion with you and others since the time of the prior letter.

As the lead agency, we encourage EPA to choose an alternative that is the safest, environmentally protective, and will at the same time achieve the time critical removal action quickly. In that light, we offer the following comments for your consideration:

1. As we stated in our letter to you dated May 17, 2010 on the initial, preliminary Time Critical Removal Actions (TCRA), we note that standard design practices require structures whose failure would adversely affect human health or the environment to be built so as not to be adversely impacted by a 100-year flood event. We urge at this point that the EPA require the design criteria of the time critical containment be set at a 100-year flood event (1%) at a minimum or higher. The design should take into consideration both the water surface elevation and river's flow velocity for that design event. The 100-year (1%) floodplain elevation in the area of this Site ranges from under 13 feet to almost 14 feet (NAVD 1988). See attached portions of the current FEMA Flood Insurance Rate Map (FIRM) for reference. The current draft analysis under review proposes to design to the 10-year flood event. Please be aware that there have been 3 flood and storm surge

events in this watershed in the past 30 years that have exceeded or were near the 100-year flood level (Hurricanes Alicia and Ike, and the flood of October 1994), and the current hurricane season is projected to be worse than average. When the storm surge probability is factored into flooding events, the actual flood event probability is greater (more severe). We again urge, for the sake of human health and the environment, that this time critical removal action be designed to meet or exceed 100-year flood elevation and velocity.

2. Transport of dioxin contamination on colloid particles and in pore water does not seem to be a consideration in the design alternative analysis. This is indicated by the proposal of use of weep holes in the sheet piling and use of geotextiles under aggregate. Through review of reports and discussions on dioxin transport, we believe that attention to transport of dioxin in pore water and on colloid particles is an important transport mechanism to consider in containment alternative considerations. This is observed by review of the following reports and discussions:
 - a. Barth, Ed, Environmental Protection Agency, Cincinnati, Ohio. Personal communication on June 30, 2010, concerning EPA guidance in development on transport of organics and metals on colloidal particles.
 - b. Hofmann T., Wendelborn A. (2007): Colloid Facilitated Transport of Polychlorinated Dibenzo-p-Dioxins and Dibenzofurans (PCDD/Fs) to the Groundwater at Ma Da Area, Vietnam. *Environmental Science and Pollution Research*. DOI: <http://dx.doi.org/10.1065/espr2007.02.389> (Abstract at: <http://www.ncbi.nlm.nih.gov/pubmed/17668815>. A longer report on this study appears at: http://www.davifo.dk/userfiles/file/pdf_ao/AO_Env-Sci-Pol.Res_groundwater-Ma-Da.Vietnam.pdf.)
 - c. Louchouart, Patrick and Brinkmeyer, Robin (October 2009). Project citation: Impacts of Dredging Activities on the Fate of Dioxin in the Houston Ship Channel and Evaluation of Natural Remediation Processes.

Incorporation of a geomembrane into the containment design will assist in containing chemicals of potential concern (COPCs) on the site by controlling movement in water.

3. We suggest that the Time Critical Removal Action use an approach primarily of Alternative 3 (as defined by the Draft Time Critical Removal Action Alternatives Analysis) with three refinements: a) conduct the dredge removal in the northwest corner as proposed in Alternative 5; b) substitute a geomembrane for the geotextile under the granular cover; and c) add boat navigation signs of some type posted on the submerged portions of the 1966 perimeter to warn boat traffic to avoid the area due to grounding; this incorporates the site protective feature of Alternative 4 in an institutional manner without impacting the flow of flood water. Alternative 3 has a low flood profile. Finally, we suggest that this modification of Alternative 3 be subjected to the alternative analysis for verification.

Thank you for the opportunity to provide comments on the Draft Time Critical Removal Action Alternatives Analysis. We look forward to contributing to the Superfund process through future reviews. Should you have questions about these comments, please contact Steve Hupp, HCPHES Administrator – Water and Solid Waste Programs at 713-439-6261 or by email at shupp@hcpbes.org.

Sincerely,

A handwritten signature in black ink, appearing to read 'Herminia Palacio', with a date '2/20/17' written below it.

Herminia Palacio, MD, MPH
Executive Director

Attachment – FIRM Maps - 2

cc: Ed Emmett, Harris County Judge
Commissioner Sylvia Garcia, Harris County Precinct Two
Vince Ryan, Harris County Attorney
John Blount, P.E., HCPID Architecture and Engineering Division